AMENDED CLAIMS

EXCLUSIVELY PRESENTED FOR CLARITY

037 What is claimed is:

1. (Currently amended) A Voltage Dosimeter, including an apparatus and method for maintaining a desired negative electrode voltage of a voltage producing source within a first predetermined range of values having an upper limit and a lower limit so as to control the positive electrode voltage of the said voltage producing source and connected circuits and maintain a base state of voltage production to eliminate the necessity for constant maximum voltage production, the said Voltage Dosimeter also including an electronic control unit (ECU) having memory, two electrodes, two voltometers connected to each said electrode for measuring current voltage at each said electrode, an electric switch, a said voltage producing source with a circulation time delay between electrical energy production and electrical energy detection, a battery, the said voltage producing source with its consequential positive electrode voltage controlled by the said ECU for delivering selected said voltage producing doses and said positive electrode voltage doses to the said circuit, the said voltage producing source having a sequential plurality of said voltage producing doses and consequential said

positive electrode voltage doses ranging from a smallest dose to a largest dose, a reaction time denoting maximum said voltage producing and positive electrode voltage production, the method comprising:

delivering the largest said voltage producing dose and thereby the largest said positive electrode voltage dose to the said circuit while repeatedly sequencing through the plurality of the said sequential positive electrode voltage doses beginning with the smallest dose and proceeding to an adjacent dose in the said sequence after a predetermined time interval has elapsed until the current said negative electrode voltage level of the said voltage producing source attains the desired voltage level at which point a corresponding voltage producing dose and a said positive electrode voltage dose are selected to occupy a said base state from the said plurality of said sequential said voltage producing and said positive electrode voltage doses;

delivering the selected said voltage producing and said positive electrode dose so as to maintain the said negative electrode voltage level in its desired range in the said base state.

2. (Currently amended) The method of claim 1 wherein the said current circulation time is determined by:

means for storing a said predetermined number of said base state voltage values in memory; and

means for determining a predetermined said sequence of said base state levels.

3. (Currently amended) The method of claim 1 wherein the said reaction time is determined by logic flow charts.

4. (Currently amended) The method of claim 1 in which a said plurality of said sequential positive electrode voltage doses are generated in fuel cells.

5. (Currently amended) The method of claim 1 wherein a said plurality of said sequential positive electrode voltage doses are generated by steam.

6. (Currently amended) The method of claim 1 wherein the said plurality of positive electrode voltage doses are connected by logic switches.

7. (Currently amended) The method of claim 1 wherein a predetermined said negative electrode voltage level for a predetermined amount of time produces a predetermined said voltage producing and said positive electrode voltage dose.

8. (Currently amended) The method of claim 1 wherein a first closing of a said electric switch produces a first said battery discharge and a first said negative electrode voltage level in a said fuel cell.

9. (Currently amended) The method of claim 1 wherein the operating said negative electrode voltage range varies with application.

10. (Original) The method of claim 1 wherein voltage doses are connected by switches controlled by logic.

11. (Currently amended) A Voltage Dosimeter, including an apparatus and method for maintaining a desired negative electrode voltage of a fuel cell within a first predetermined range of values having an upper limit and a lower limit so as to control the positive electrode voltage of the said fuel cell and connected circuits and maintain a base state of voltage production to eliminate the necessity for constant maximum voltage production, the said Voltage Dosimeter also including an electronic control unit (ECU) having memory, a battery, two electrodes, two voltometers connected to each said electrode for measuring current voltage at each said electrode, an electric switch, a said fuel cell with a circulation time delay between electrical energy production from a

reactant gas flow rate to electrical energy detection, the said reactant gas flow rate controlled by the said ECU through solenoid valves for delivering selected said voltage producing doses and said positive electrode voltage doses to the said circuit, the said voltage producing source having a sequential plurality of said voltage producing doses and consequential said positive electrode voltage doses ranging from a smallest dose to a largest dose, a reaction time denoting maximum said reactant gas flow rate with maximum said voltage producing and positive electrode voltage production, the method comprising:

delivering the largest said reactant gas flow rate producing the largest said voltage producing dose and thereby the largest said positive electrode voltage dose to the said circuit while repeatedly sequencing through the plurality of the said sequential positive electrode voltage doses beginning with the smallest dose and proceeding to an adjacent dose in the said sequence after a predetermined time interval has elapsed until the current said negative electrode voltage level of the said voltage producing source attains the desired voltage level at which point a corresponding said reactant flow rate with a said voltage producing dose and a said positive electrode voltage dose are selected to occupy the said base state from the said plurality of said sequential said voltage producing and said positive electrode voltage doses;

delivering the selected said reactant gas flow rate with the consequential voltage producing and said positive electrode dose so as to maintain the said negative electrode voltage level in its desired range in the said base state.

12. (Currently amended)The method of claim 11 wherein the said current circulation time is determined by:

means for storing a predetermined number of said base state voltage values in memory; and

means for determining a predetermined said sequence of said base state levels.

13. (Currently amended) The method of claim 11 wherein the said reaction time is determined by logic flow charts.

14. (Currently amended) The method of claim 11 wherein the said plurality of said positive electrode voltage doses are connected by logic switches.

15. (Currently amended) The method of claim 11 wherein a predetermined said negative electrode voltage level for a said predetermined amount of time produces a said voltage producing and said positive electrode voltage dose.

16. (Currently amended) The method of claim 11 wherein a first closing of a said electric switch produces a first said battery discharge and a first negative electrode voltage level.

17. (Currently amended) The method of claim 11 wherein the operating said negative electrode voltage range varies with application.

18. (Currently amended) The method of claim 11 wherein said negative electrode voltage doses are connected by said switches controlled by logic.

19. (Currently amended) The method of claim 11 wherein the said reactant gases are hydrogen and oxygen.